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10/762,044	01/21/2004	Stephen J. Todd	E0295.70195US00	4481

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EXAMINER
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LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
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2161

MAIL DATE	DELIVERY MODE
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07/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/762,044

## Applicant(s)

TODD ET AL.

## Examiner

Etienne P. LeRoux

## Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-80 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-80 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Claim Status***

Claims 1-80 are pending.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10, 14, 15, 17, 20-29, 33, 34, 36, 39-48, 52, 53, 55, 58-63, 65-70, 72-77, 79 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pub No US 2004/0249871 (Bazoon), hereafter Bazoon in view of Pub No US 2004/0083347 (parson), hereafter Parson.

Regarding claim 1, 20, 39, 58, 65, 72, 79, 80, Bazoon discloses receiving, at the at least one storage system, a request from the at least one host to reduce a length of the retention period for the at least one unit of data [Bazoon; reduce storage period because document is no longer useful, para. 22]. Bazoon discloses the elements of the claimed invention as noted above but does not disclose a CAS system. Parson discloses a CAS system [Parson; para. 81]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bazoon to include a CAS system as taught by Parson for the purpose of providing a memory type that allows key-oriented information to be stored and quickly retrieved [Parson; para. 3]. Furthermore, it would have been obvious to one of ordinary skill in the art at the time

the invention was made to combine the disclosures of Bazoon and Parson because both Bazoon and Parson are concerned with the problem of minimizing the size of document repositories by deleting data [Bazoon; abstract, Parson, para. 81] such that (1) search results do not include irrelevant and distracting source documents [Bazoon; para. 6] and (2) cost is minimized because CAM is expensive [Parson; para. 4]. Arguably, the preamble language “retention period during which the at least one unit of data cannot be deleted” breathes life into claim 1. However, Bazoon discloses above limitation [para. 35, document removal process can be activated automatically each night to find and remove documents which have no remaining storage period]. Based on above disclosure by Bazoon, one of ordinary skill in the art would deduce that unless the storage period of a document has expired, the document cannot be deleted/removed.

Furthermore, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above but does not disclose receiving from the at least one CAS system a response indicating that the request was granted, i.e., to reduce a length of the retention period for the at least one unit of data. However, Bazoon discloses in paragraph 36, that an interested party is notified when a document is going to be removed from the knowledge repository. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bazoon such that an interested party is notified when the length of the retention period is reduced because an interested party is interested in whether or not to retain a document in the knowledge repository [Bazoon, para. 39]

Regarding claim 2, 21, 40, 59, 60, 66, 67, 73, 74, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses

wherein the request comprises an event command indicating the occurrence of an event [Bazoon; para. 23, date range can be shortened or lengthened]

Regarding claim 3, 22, 41, 61, 68, 75, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses wherein the event command does not specify the manner in which the retention period is to be reduced, and wherein the act (B) further comprises an act of determining the manner of reducing the retention period by referring to information stored within or accessible to the storage system [Bazoon; para. 39, interested party assigns a new storage period to the document]

Regarding claim 4, 23, 42, 62, 69, 76, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses wherein the request specifies that the retention period be reduced and the manner in which the length of the retention period is to be reduced [Bazoon; default storage period can be assigned by the system, para. 39]

Regarding claim 5, 24, 43, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses wherein the at least one storage system stores the previously-defined retention period within the unit of data, and wherein the act (B) further comprises replacing the unit of data with a new unit of data having the reduced retention period [Bazoon, para. 23, shortened data ranges]

Regarding claim 6, 25, 44, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses wherein the at least one storage system stores the previously-defined retention period in a record outside of the unit of

data, and wherein the act (B) further comprises modifying the record to reduce the previously-defined retention period [Bazoon; default storage period can be assigned by the system, para. 39]

Regarding claim 7, 8, 9, 26, 27, 28, 45, 46, 47, 63, 70, 77, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above but does not disclose wherein the at least one storage system is a content addressable storage system that is responsive to access requests from the at least one host that reference a content address for the unit of data that is generated based on the content of the unit of data. Official Notice is taken that wherein the at least one storage system is a content addressable storage system that is responsive to access requests from the at least one host that reference a content address for the unit of data that is generated based on the content of the unit of data is well known and expected in the art because the Microsoft Computer Dictionary states that content addressed storage is a memory based storage method in which data items are accessed not on the basis of a fixed address or location but by analysis of their content.

Regarding claim 10, 29, 48, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses wherein the act (B) further comprises acts of: (B1) determining whether the previously-defined retention period for the unit of data is permitted to be reduced; and (B2) reducing the length of the previously-defined retention period only when the previously-defined retention period for the unit of data is permitted to be reduced [Bazoon: para. 39]

Regarding claim 14, 33, 52 the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses wherein the act (B) further

comprises an act of reducing the length of the previously-defined retention period to zero [Bazoon, para. 40].

Regarding claim 15, 34, 53, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses wherein the act (B) further comprises an act of deleting the unit of data [Bazoon; document is archived, para. 39]

Regarding claim 17, 36, 55, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above and furthermore discloses creating a new unit of data to replace the deleted unit of data, the new unit of data having a retention period shorter than the previously-defined retention period [system reduces storage period of the document, para. 22]

Claims 11, 12, 30, 31, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bazoon and Parson as applied to claim 10, 29 and 48 are and further in view of Pub No US 2005/0076293 issued to Beresnevichiene (hereafter Beresnevichiene).

Regarding claim 11, 30, 49, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above but does not disclose wherein the act (B1) further comprises determining whether at least one of the unit of data and the previously-defined retention period is within a class designated as capable of having the retention period reduced. Beresnevichiene discloses wherein the act (B1) further comprises determining whether at least one of the unit of data and the previously-defined retention period is within a class designated as

capable of having the retention period reduced [paragraph 7]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination of references to include wherein the act (B1) further comprises determining whether at least one of the unit of data and the previously-defined retention period is within a class designated as capable of having the retention period reduced as taught by Beresnevichiene for the purpose of deciding when to delete a particular type of document [paragraph 7].

Regarding claim 12, 31, 50, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above but does not disclose wherein the act (B1) further comprises determining whether at least one of the unit of data and the previously-defined retention period is within the class designated as capable of having the retention period reduced by examining the previously-defined retention period [Beresnevichiene, paragraph 7]

Claims 13, 32 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bazoon, Parson and Beresnevichiene as applied to claim 11, 30 and 49 and further in view of US Pat No 6,690,774 issued to Chang et al (hereafter Chang).

Regarding claim 13, 32, 51, the combination of Bazoon, Parson and Beresnevichiene discloses the elements of the claimed invention as noted above but does not disclose wherein the act (B1) further comprises determining whether at least one of the unit of data and the previously-defined retention period is within the class designated as capable of having the retention period reduced by examining a flag associated with the unit of data. Chang discloses wherein the act (B1) further comprises determining whether at least one of the unit of data and



the previously-defined retention period is within the class designated as capable of having the retention period reduced by examining a flag associated with the unit of data [col 10, lines 20-30]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination of references to include wherein the act (B1) further comprises determining whether at least one of the unit of data and the previously-defined retention period is within the class designated as capable of having the retention period reduced by examining a flag associated with the unit of data as taught by Chang for the purpose of deciding whether to keep the voicemail record [col 10, lines 25-30].

Claims 16, 18, 19, 35, 37, 38, 54, 56, 57, 64, 71 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Bazoon and Parson as applied to claim 15, 34, 53, 58, 65, 72 and further in view of US Pat No 6,542,895 issued to DeKimpe et al (hereafter DeKimpe).

Regarding claim 16, 35, 54, the combination of Bazoon and Parson discloses the elements of the claimed invention as noted above but does not disclose creating an audit log entry that records information about the deletion of the unit of data. DeKimpe discloses creating an audit log entry that records information about the deletion of the unit of data [col 2, lines 45-60]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above combination of references to include creating an audit log entry that records information about the deletion of the unit of data as taught by DeKimpe for the purpose of creating a record of changes to the database [col 2, lines 45-50].

Regarding claim 18, 37, 56, the combination of Bazoon, Parson and DeKimpe discloses the elements of the claimed invention as noted above and furthermore discloses an act of maintaining on at least one CAS system at least one record for the unit of data, the at least one record storing a history of the reduction of the previously defined retention period [history record is the same as audit record, DeKimpe, col 2, lines 45-60]

Regarding claim 19, 38, 57, 64, 71, 78, the combination of Bazoon, Parson and DeKimpe discloses the elements of the claimed invention as noted above and furthermore discloses receiving at the at least one CAS system a request from the at least one host to restore the retention period to the length of the previously defined retention period for the at least one unit of data and restoring the retention period to the length of the previously defined retention period in response to the request [Bazoon, keeping the storage period the same as it was before, para. 22]

### ***Response to Arguments***

Applicant's arguments filed 3/28/2008 have been fully considered but they are not persuasive.

#### **Applicant Argues:**

Applicant states in the fourth paragraph of page 20 the following:

Each independent claim relates to reducing a retention period for a unit of data stored on a storage system, wherein the retention period defines a period during which the unit of data cannot be deleted from the storage system. The Office Action asserts that paragraph 22 Bazoon discloses establishing a retention period for a unit of data, and that the length of the retention

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period can be reduced (Page 4, lines 3-4), and also paragraph 35 of Bazoon discloses "retention period during which the at least one unit of data cannot be deleted." Applicants respectfully disagree

**Examiner Responds:**

Examiner is not persuaded.

The claim language must be interpreted in light of the specification.

[specification paragraph 37]

[0037] In a system that implements a retention period for a unit of data, when sending a request to a storage system to store the data, a host computer (defined herein as any computer capable of writing data to a storage system) may provide the storage system with the data to be stored and an associated retention period. The retention period may, for example, define a period of time for which the data cannot be deleted or modified. The storage system may store the data and its associated retention period. If the storage system later receives a request from a host computer to delete or modify the data, the storage system may first evaluate the stored retention period associated with the data to determine if the retention period has expired. **If the retention period has not expired, the storage system will not delete or modify the data. In this manner, once the retention period has been established for a unit of data, the storage system ensures that the unit of data is retained in an unmodified state for the duration of the retention period.**

The specification clearly discloses that data is not/can not be deleted until the storage period for the data has expired.

The following disclosure by Bazoon is relevant.

[0011] The invention provides a system and method for automatically removing documents from a knowledge repository. The invention includes the operation of assigning a storage period to documents in the knowledge repository. A further operation is reducing the storage period for documents as time passes. An additional operation is identifying whether the documents are useful to users. The storage period of documents is updated based on the documents' usefulness to users. **Then the documents that have an expired storage period are removed.**

[0020] As illustrated in FIG. 1, the method can include the operation of assigning a storage period to documents in the knowledge repository in block 20. The storage period is generally defined as a value or value range, which tracks the amount of time remaining for the document to

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stay in the database. **For example, the storage period may contain a value that represents the document's remaining number of months, days, or hours in the knowledge repository or database.** Alternatively, the storage period can be a date and/or time range during which the document is allowed to exist in the knowledge repository.

[0024] **When the documents have an expired storage period, then the documents can be automatically removed from the knowledge repository in block 28.** In one embodiment, an executable process can be included that runs automatically each day or once every predetermined period to remove multimedia documents from the knowledge repository.

[0035] A document removal process 50 is included **and configured to remove documents from the knowledge repository 38 that have expired storage periods.** The document removal process can be in communication with the knowledge repository. It is significant that the document removal process can be configured to be automatically activated at pre-determined intervals to check which documents have expired. For instance, the document removal process can be activated automatically each night to find and remove documents which have no remaining storage period.

Examiner concludes that Bazoon anticipates the claim 1 limitation “the retention period specifying a length of time during which the at least one unit of data cannot be deleted from the at least one CAS system.”

**Applicant Argues:**

Applicant states in the second paragraph of page 22 “The Office action appears to assert that the CAS system recited in the claims reads on the CAM disclosed by Parson. However, it should be appreciated that accessing data using these two types of systems is fundamentally different.

**Examiner Responds:**

Examiner is not persuaded.

The claimed element “content addressable storage system (CAS) system” must be interpreted in light of the specification.

Detail Description Paragraph:

[0056] A unit of data in the architecture defined in the CAS applications is referred to as a blob (e.g., blob 303). Blob 303 may be, for example, the binary data to be stored by a host (e.g., host 105 in FIG. 1) on a storage system (e.g., storage system 101), such as, for example, a patient x-ray, company financial records, or any other type of data. When the blob 303 is stored to the content addressable storage system, a unique address is generated for the blob 303 based upon its content in the manner discussed above.

Applicant fails to provide a specific and deliberate definition of “content addressable storage system (CAS) system” The specification provides an example of a “content addressable storage system (CAS) system” i.e., blob. It is unclear specifically what is “blob.”

Since the specification fails to provide a specific and deliberate definition of “content addressable storage system (CAS) system,” examiner is required to give “content addressable storage system (CAS) system” its broadest reasonable interpretation as would be well-known to one of ordinary skill in the art. The Microsoft Computer Dictionary Fifth Edition states that content-addressed storage is the same as associative storage. The above defines associative storage as “a memory-based storage method in which data items are accessed not on the basis of a fixed address or location but by analysis of their content.

Parsons discloses the following:

Summary of Invention Paragraph:

[0003] Content addressable memory (CAM) is a memory type that allows key-oriented

information to be stored and quickly retrieved. CAM performs parallel searches on entries in the CAM. In other words, a network processor could order a search for "Key a" in a CAM, every entry in the CAM would compare its contents with "Key a," and every entry that contained "Key a" would be quickly found and marked. Typically, in NAT, there is either one entry or no entries that contain the key.

Examiner concludes that above teaching by Parsons of addressing by means of at least one keyword would be recognized by one of ordinary skill in the art as pertaining to "content addressable storage system (CAS) system" as defined by the Microsoft Computer Dictionary.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne P. LeRoux whose telephone number is (571) 272-4022. The examiner can normally be reached on Monday through Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Etienne P LeRoux/  
Primary Examiner, Art Unit 2161

6/27/2008